

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): An internal combustion engine comprising at least one cylinder and at least one laser light source for time-controlled externally supplied ignition, ~~characterised in that~~ wherein there is provided at least one holographic optical element for focusing of the laser light.

Claim 2 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein the laser light is focused in the combustion chamber on to at least two real focal points.

Claim 3 (currently amended): An internal combustion engine according to claim 2 ~~characterised in that~~ wherein the light focused on to the at least two focal points issues from just one laser light source.

Claim 4 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein there is provided just one laser light source per cylinder.

Claim 5 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein there is provided just one laser light source for the entire internal combustion engine.

Claim 6 (currently amended): An internal combustion engine according to claim 2 ~~characterised in that~~ wherein the intensity of the laser light is or can be individually predetermined at each focal point.

Claim 7 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein exclusively the phase of the laser light wave front is influenced by the holographic optical element.

Claim 8 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein the holographic optical element is lithographically produced.

Claim 9 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein the holographic optical element includes a plate ~~[[,]]~~ with a defined local variation in thickness.

Claim 10 (currently amended): An internal combustion engine according to claim 9 ~~characterised in that~~ wherein the plate is made ~~of one of~~ from a material selected from the group consisting of glass and sapphire.

Claim 11 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein the holographic optical element includes a plate with a defined local variation in refractive index.

Claim 12 (currently amended): An internal combustion engine according to claim 11 characterised in that wherein the plate is made of one of from a material selected from the group consisting of glass and sapphire.

Claim 13 (currently amended): An internal combustion engine according to claim 1 characterised in that it has further comprising at least one optical transmission means.

Claim 14 (currently amended): An internal combustion engine according to claim 1 characterised in that it has further comprising at least one coupling-in optical system for coupling the laser light into at least one combustion chamber.

Claim 15 (currently amended): An internal combustion engine according to claim 13 characterised in that wherein the optical transmission means include at least one holographic optical element.

Claim 16 (currently amended): An internal combustion engine according to claim 14, characterised in that wherein the coupling-in optical system includes at least one holographic optical element.

Claim 17 (currently amended): An internal combustion engine according to claim 1 characterised in that wherein at least one collimating optical means is arranged in the beam path of the laser light upstream of the holographic optical element.

Claim 18 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein at least one focusing optical element ~~[[,]]~~ is arranged in the beam path of the laser light upstream of the holographic optical element.

Claim 19 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein at least one focusing optical element ~~[[,]]~~ is arranged in the beam path of the laser light downstream of the holographic optical element.

Claim 20 (currently amended): An internal combustion engine according to claim 1 ~~[[,]]~~ ~~characterised in that~~ wherein at least one focusing optical element is a lens.

Claim 21 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that~~ wherein the focal length (f) of at least two focal points is different.

Claim 22 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that it is one of~~ wherein the engine is selected from the group consisting of a carburetor Otto cycle engine, an injection Otto cycle engine and a gas Otto cycle engine, each operated with fuel which is gaseous in the normal condition.

Claim 23 (currently amended): An internal combustion engine according to claim 1 ~~[[,]]~~ ~~characterised in that it~~ wherein the engine is a multi-cylinder engine.

Claim 24 (currently amended): An internal combustion engine according to claim 1 ~~characterised in that it~~ wherein the engine is a stationary engine.

Claim 25 (currently amended): An internal combustion engine according to claim 1 characterised in that wherein the fuel-air mixture in the combustion chamber is homogeneous.

Claim 26 (currently amended): An internal combustion engine according to claim 1 characterised in that wherein there is provided an electronic engine management system which, in dependence on detected engine parameters, actuates the laser light source or sources and in so doing establishes laser light parameters.

Claim 27 (currently amended): An internal combustion engine according to claim 26, characterised in that wherein the detected engine parameters are ~~at least one of~~ selected from the group consisting of ~~the~~ crankshaft angle ( $\alpha$ ), ~~the~~ rotary speed ( $n$ ), ~~the~~ engine output ( $N$ ) and ~~the~~ current cylinder pressure ( $P_i$ ) in the combustion chamber.

Claim 28 (currently amended): An internal combustion engine according to claim 26 characterised in that wherein the laser light parameters are ~~at least one of~~ selected from the group consisting of ~~the~~ succession in respect of time, ~~the~~ pulse duration and ~~[[/or]]~~ the firing energy.

Claim 29 (currently amended): An internal combustion engine according to claim 1 characterised in that wherein the fuel-air mixture is fired per working cycle of a cylinder by at least two laser light pulses which occur in succession in respect of time.

Claim 30 (currently amended): An internal combustion engine according to claim 1  
~~characterised in that~~ wherein the air fuel ratio ( $\lambda$ ) of the fuel-air mixture in the  
combustion chamber is greater than 1.9.